

REMARKS

Claims 18-21 and 24-45 are now in this application.

By this amendment claims 22 and 23 have been canceled, being replaced by new claims 44 and 45. Thus there are the same number of claim as were acted on in the Final Rejection of March 29, 2004.

By this amendment the phrase "short-circuit element" and variations thereof have been replaced by -- pole piece --, or appropriate variations thereof, to bring the specification and claims into more accepted terminology. These changes were suggested by the examiner in a telephone conversation of April 14, 2004. It is believed that this terminology is clearly the intended meaning of the language as originally presented, and does not constitute a new issue.

The present prior art rejection, as it might still be applied to claim 18, which remains unamended except for the revision of "short circuit element" to **pole piece**, is still not tenable. The pole housing of Kobman et al is not "in one piece" with the gear housing 28, but rather the two are separate. As seen in figure 1 of Kobman et al, housing 26 has an "O" ring at either end. In the case of "gear" housing 28, clearly the "O" ring separates the "gear" housing 28 from pole housing 26, so that the two clearly are not "in one piece" as recited in claim 18.

A few further corrections have also been made to the language of the claims so as to bring them into better US format.

Modifications have also been made to claim 43 so as to make the limitation of the gear housing more meaningful. In particular in this regard, claim 43 has been amended to recite that the gear housing houses at least one gear. Essentially then, the word "gear" as it applies to the gear housing is no longer a meaningless modifier, and the examiner's position that the housing 28 of Kobman et al is a "gear" housing has even less merit.

In paragraph 1 of the Office action the examiner raised an issue with respect to the drawings. It is pointed out that figure 1 includes a showing of two areas of pole housing 10, one near the middle of figure 1, the other near the bottom. Near the top of figure 1 gear housing 5 is clearly shown as integral with the pole housing 10, by means of the two components being a solid piece, having the same hatching with no breaks shown in the structure. Further, near the bottom of figure 1 the lower section of element 10 is also shown with the same hatching. Clearly, figure 1 indicates that all three, gear housing 5, pole housing 10 near the middle of figure 1, and pole housing 10 near the bottom of figure 1 are simply different areas of the same piece of structure, and that all of these areas are integrally part of the same structure. Further, figure 2e is an amplified showing of the pole housing 10. It also shows that the two areas of pole housing 10, as well as the gear housing 5, are all one piece.

In paragraph 4 of the Office action the examiner rejected claims 18-21, 23, 27-28, 30, 34-36, 38-39 and 41-43 as anticipated by Kobman et al. This rejection, as it might still be applied to claim 43, is not tenable. The pole housing of Kobman et al is not "in one piece" with the gear housing 28, but rather the two are separate. As seen in figure 1 of Kobman et al housing 26 has an "O" ring at either end. In the case of "gear" housing 28, clearly the "O" ring separates the housings, and "gear" housing 28 is not in one piece with pole housing 26. And further, the housing 28 of Kobman et al is not a gear housing.

In paragraph 6 the examiner rejected claims 31-33 as unpatentable over Kobman et al in view of Bobay. In paragraph 7 the examiner rejected claims 22 and 37 as unpatentable over Kobman et al in view of Kabatnik et al.

In so far as any rejection which depends on Kobman et al might be repeated against claims 18 or 43, or any other claims which are presently in the application, it is pointed out that the disclosure of Kobman et al includes a motor housing which is also a pump housing, although they are not integral as are applicant's. At column 3, lines 15-20 Kobman et al speak of the pump having a gear and rotor assembly 32.

However, this is the only location in their specification where Kobman et al recite anything that might possibly imply that the pump housing could be considered to include a gear housing. Kobman et al do not disclose any gears. Thus, there are no "gears" within a "gear housing", and accordingly, applicant believes that there is

no “gear” housing anywhere in the teachings of Kobman et al. This is clearly different from the claims of this application.

Further, as can be seen from their drawings, Kobman et al do not show any gears. Thus, there can be no “gear” housing within the teachings of Kobman et al, let alone a motor housing which is integral with any part of a “gear” housing, as is recited in applicant’s claims 18 and 43.

To highlight this difference between the structure of the claims in this application as compared to the structure of Kobman et al, the limitation that the gear housing does indeed house a worm gear has been added to both claims 18 and 43, so that the examiner can no longer give weight to the phrase “gear” housing.

Furthermore, the reference to Kobman et al does not teach a pole housing which is **in one piece** with any other housing, whether it be a “gear” housing or a “pump” housing. In Kobman et al one housing element 28 is surrounded by a second housing element 26. These housing elements are not in one piece. Instead, Kobman et al supply seals, which are unnumbered but are clearly shown in figure 1 of Kobman et al as “O” rings at either end of housing element 26. Clearly, the housing elements of Kobman et al cannot in any way be considered to be in one piece as recited in the claims of this application, especially as recited in claims 18 and 43.

The reference to Bobay et al does not teach anything which supplies the deficiencies of the Kobman et al reference. In Bobay et al also, there are no gears taught, and so there can be no gear housing. Since neither Kobman et al nor Bobay et al teach anything which can be considered to be a gear housing, clearly neither can be thought of as teaching a motor housing which is in one piece with any part of a gear housing, or in one piece with any other housing, be it a gear housing or a pump housing, as recited in the claims of this application.

Also, claims 20, 21, 27-28, 35, 36 and 41-42 each include recitations of structure which neither the reference to Kobman et al nor the reference to Bobay et al teach.

In particular, claims 20, 21 and 35 each recite that at least one magnet is at least partly surrounded by the material of the pole housing. This structure cannot be found in any of the references.

Claims 27-28 and 41 recite that the "at least one magnet" is secured by positive engagement in the plastic of the pole housing, and also by engagement with the pole piece, which is located radially outward. This is further structure which cannot be found in any of the references.

Claim 36 recites that the pole piece has a protrusion which is surrounded by the material of the pole housing. This is additional structure which cannot be found in any of the references.

Claim 30 recites that the end shield is axially positionable in the pole housing in order to adjust the longitudinal play of the armature. This again is structure which none of these references teaches.

Claim 42 recites that the pole piece is secured by positive engagement in the plastic of the pole housing, and also by engagement with the magnet, which is located radially inwardly. This is further structure which cannot be found in any of the references.

Applicant's figures 1 and 2a-e, and also the specification at page 5, lines 22 and 23, and page 6, lines 12 to 16, show that the magnets 32 rest in part directly against the pole housing 10 and are maintained, either in part (Figs. 1, 2a, 2e), or wholly (Figs. 2b, 2c, 2d), by the pole housing 10.

Further, the end shield 43 is a part of the bearing housing 10. It closes off the pole housing 10 on the motor side of this housing. It constitutes a bottom of the pole housing.

In the prior art, a holding cup for holding the magnets is required. Either further fastening means, for example adhesives or springs are needed for fastening the magnets within the holding cup, or the magnets are held by means of a press fit in the holding cup. The magnets are brittle, and therefore if subjected to mechanical stresses often break. Applicant's disclosed structure has overcome this disadvantage, supplying a support system and structure for the magnets in which

the magnets are not subjected the stress of being inserted into a separate housing. And further, once the magnets are molded in place the housing provides a much more robust support for these oftentimes brittle magnets.

As taught in the present application, the magnets are held directly by the pole housing in a simple manner and without appreciable mechanical stress. Thus, the means taught in this application for holding the magnets in the housing gain substantial advantage over the prior art.

Moreover, with the present application the pole housing bottom constitutes an end shield which also holds the motor bearing in place.

By this amendment claims 22 and 23 have been canceled, and replaced by claims 44 and 45. Claims 44 and 45 are similar to claim 18. However claim 44 has added the limitation that the gear housing houses at least one gear. By this added limitation, claim 44 clearly further distinguishes over the reference to Kobman et al, in that in Kobman et al clearly the housing 28 is not a gear housing as recited by claim 44.

Claim 45 adds that at least one of the magnets or the pole piece is insert molded in place within the pole housing. Again, Kobman et al does not teach such structure, and this claim must be considered to be allowable over the Kobman et al reference, even when considered in view of the Bobay et al and Kabatnik et al references.

Appl. No. 09/889,309
Amdt. filed June 29, 2002
Responsive to FR of March 29, 2004

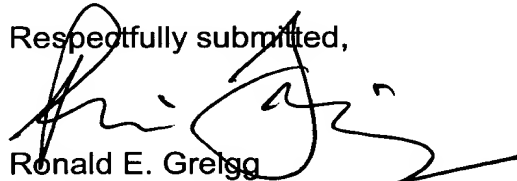
The examiner has indicated that claims 24-26, 29, 39 and 40 are directed to allowable subject matter, and such indication is appreciated.

This amendment adds two new independent claims, and accordingly a fee authorizing sheet accompanies this amendment, authorizing the payment of the filing fees of \$172.00, for this two new independent claims, to our Deposit Account Number 07-2100.

Entry of this amendment, and allowance of the claims are respectfully solicited.

Date: June 29, 2004

Respectfully submitted,



Ronald E. Greigg

Registration No. 31,517

Attorney for Applicant

Customer No. 02119

GREIGG & GREIGG P.L.L.C.
1423 Powhatan Street, Suite One
Alexandria, VA 22314
Telephone: (703) 838-5500
Facsimile: (703) 838-5554

REG/SLS/cle

J:\Bosch\IR36445\04-06-29, Response to FR of 3-29-04.wpd